AMENDMENTS TO THE CLAIMS:

The following is the status of the claims of the above-captioned application, as amended.

1. (Previously presented) A non-naturally occurring polypeptide comprising:

(i) a leader sequence, the leader sequence comprising:

(a) an albumin secretion pre sequence or albumin secretion pre sequence having at least 60% sequence identity to SEQ ID NO:28, and

(b) the following motif:

$-X_1-X_2-X_3-X_4-X_5-$

where X_1 is phenylalanine, tryptophan, or tyrosine, X_2 is isoleucine, leucine, valine, alanine or methionine, X_3 is leucine, valine, alanine or methionine, X_4 is serine or threonine and X_5 is isoleucine, valine, alanine or methionine; and

(ii) a sequence of a mature desired protein.

2. (Previously presented) A polypeptide according to Claim 1, wherein X_1 is phenylalanine.

3. (Previously presented) A polypeptide according to Claim 1, wherein X_2 is isoleucine.

4. (Previously presented) A polypeptide according to Claim 1, wherein X_3 is valine.

5. (Previously presented) A polypeptide according to Claim 1, wherein amino acids of the motif are included in the polypeptide as substitutions for naturally occurring amino acids.

6. (Previously presented) A polypeptide according to Claim 1, wherein X_5 is isoleucine.

7. (Previously presented) A polypeptide according to Claim 1, wherein the motif comprises the amino acid sequence of SEQ ID NO: 7.

8. (Previously presented) A polypeptide according to Claim 1, wherein the albumin secretion pre sequence is a variant having at least 9 identical amino acids to the albumin secretion pre sequence, wherein the at least 9 identical amino acids are not part of the motif.

9. (Withdrawn) A polypeptide according to Claim 8, wherein X_1, X_2, X_3, X_4 and X_5 are at positions -20, -19, -18, -17 and -16, respectively, in place of the naturally occurring amino acids

at those positions, wherein the numbering is such that the -1 residue is the C-terminal amino acid of the native albumin secretion pro sequence, and wherein X_1 is phenylalanine, tryptophan, or tyrosine, X_2 is isoleucine, leucine, valine, alanine or methionine, X_3 is leucine, valine, alanine or methionine, X_4 is serine or threonine and X_5 is isoleucine, valine, alanine or methionine.

10. (Previously Presented) A polypeptide according to Claim 9 wherein the albumin secretion pre sequence or variant thereof is a human albumin secretion pre sequence or a variant thereof.

11. (Currently amended) A polypeptide according to Claim 10 comprising the secretion pre sequence of SEQ ID NO: 28~~MKWVFIVSILFLFSSAYS~~.

12. (Withdrawn) A polypeptide according to Claim 1 wherein the leader sequence comprises a secretion pro sequence.

13. (Withdrawn) A polypeptide according to Claim 12 wherein the secretion pro sequence or variant thereof is fused by a peptide bond at its C-terminal end to the N-terminal amino acid of a secretion pro sequence, or variant thereof, thereby to form a pre-pro sequence.

14. (Withdrawn) A polypeptide according to Claim 13 wherein the secretion pro sequence is an albumin secretion pro sequence or variant thereof.

15. (Withdrawn) A polypeptide according to Claim 14 wherein the albumin secretion pro sequence is human serum albumin secretion pro sequence or variant thereof.

16. (Withdrawn) A polypeptide according to Claim 15 wherein the secretion pro sequence motif is the yeast MF -1 secretion pro sequence or variant thereof.

17. (Withdrawn) A polypeptide according to Claim 12 comprising the sequence:
MKWVFIVSILFLFSSAYSRY^{1}Y^{2}Y^{3}Y^{4}Y^5
Wherein Y^1 is Gly or Ser, Y^2 is Val or Leu, Y^3 is Phe or Asp, Y^4 is Arg or Lys and Y^5 is Arg or Lys, or variant thereof.

18. (Withdrawn) A polypeptide according to Claim 17 wherein Y^1 is Gly, Y^2 is Val and Y^3 is Phe; or Y^1 is Ser, Y^2 is Leu and Y^3 is Asp.

19. (Withdrawn) A polypeptide according to Claim 17 wherein Y^4 is Arg and Y^5 is Arg; Y^4 is Lys and Y^5 is Arg; Y^4 is Lys and Y^5 is Lys; or Y^4 is Arg and Y^5 is Lys.

20. (Previously Presented) A polypeptide according to Claim 1 wherein the sequence of the desired protein is fused at its N-terminal end to the C-terminal amino acid of the leader sequence.

21. (Previously presented) A polypeptide according to Claim 1 wherein the sequence of the desired protein is fused at its N-terminal end to the C-terminal amino acid of the leader sequence.

22. (Previously presented) A polypeptide according to Claim 1 wherein the mature desired protein is albumin or albumin variant, fragment or fusion thereof, wherein the variant comprises an amino acid sequence that is at least 90% identical to albumin.

23. (Original) A polypeptide according to Claim 22 wherein the albumin is human albumin.

24. (Withdrawn) A polypeptide according to Claim 1 wherein the mature desired protein is transferrin or a variant, fragment or fusion thereof.

25. (Withdrawn) A polypeptide according to Claim 24 wherein the transferring is human transferrin.

26. (Withdrawn) An isolated polynucleotide comprising a sequence that encodes the motif defined by Claim 1.

27. (Withdrawn) A polynucleotide according to Claim 26 comprising the sequence of SEQ ID NO: 15.

28. (Withdrawn) A polynucleotide according to Claim 26 comprising the sequence of SEQ ID NO: 16.

29. (Withdrawn) A polynucleotide according to Claim 26 comprising the sequence of SEQ ID NO: 17.

30. (Withdrawn) A polynucleotide according to Claim 26 comprising the sequence of SEQ ID NO: 18.

31. (Withdrawn) A polynucleotide according to Claim 26 comprising the sequence of SEQ ID NO: 34.

32. (Withdrawn) A polynucleotide according to Claim 30 comprising the sequence of SEQ ID NO: 24.

33. (Withdrawn) A polynucleotide according to Claim 32 comprising the sequence of SEQ ID NO: 25 or a variant thereof, which variant has the leader sequence of SEQ ID NO: 24 and encodes a variant or fragment of the albumin encoded by SEQ ID NO: 25.

34. (Withdrawn) A polynucleotide according to Claim 30 comprising the sequence of SEQ ID NO: 27.

35. (Withdrawn) A polynucleotide according to Claim 34 comprising the sequence of SEQ ID NO: 21 or a variant thereof, which variant has the leader sequence of SEQ ID NO: 27 and encodes a variant or fragment of the albumin encoded by SEQ ID NO: 21.

36. (Withdrawn) A polynucleotide comprising the sequence of SEQ ID NO: 21 or fragment thereof.

37. (Withdrawn) A polynucleotide according to any one of Claim 33 wherein the polynucleotide comprises a DNA sequence being a contiguous or non-contiguous fusion of a DNA sequence encoding a heterologous protein with either the DNA sequence SEQ ID NO: 25 or the DNA sequence SEQ ID NO: 21.

38. (Withdrawn) A polynucleotide which is the complementary strand of a polynucleotide according to claim 26.

39. (Withdrawn) A polynucleotide according to claim 26 comprising an operably linked transcription regulatory region.

40. (Withdrawn) A polynucleotide according to claim 39 wherein the transcription regulatory region comprises a transcription promoter.

41. (Withdrawn) A self-replicable polynucleotide sequence comprising a polynucleotide according to Claim 26.

42. (Withdrawn) A cell comprising a polynucleotide according to Claim 26.

43. (Withdrawn) A cell according to Claim 42 which is a eukaryotic cell.

44. (Withdrawn) A cell according to Claim 43 which is a fungal cell.

45. (Withdrawn) A cell according to Claim 44 which is an *Aspergillus* cell.

46. (Withdrawn) A cell according to Claim 44 which is a yeast cell.

47. (Withdrawn) A cell according to Claim 46 which is a *Saccharomyces*, *Kluyveromyces*, *Schizosaccharomyces* or *Pichia* cell.

48. (Withdrawn) A cell culture comprising a cell according to Claim 42 and culture medium.

49. (Withdrawn) A cell according to Claim 48 wherein the medium contains a mature desired protein as a result of the production of a polypeptide as defined in Claim 1.

50. (Withdrawn) A process for producing a mature desired protein, comprising (1) culturing a cell according to Claim 42 in a culture medium wherein the cell, as a result of the production of a polypeptide as defined in Claim 1, secretes a mature desired protein into the culture medium, and (2) separating the culture medium, containing the secreted mature protein, from the cell.

51. (Withdrawn) A process according to Claim 50 additionally comprising the step of separating the mature desired protein from the medium.

52. (Withdrawn) A process according to Claim 51 additionally comprising the step of formulating the separated mature desired protein with a therapeutically acceptable carrier or diluents thereby to produce a therapeutic product suitable for administration to a human or an animal.

53. (Withdrawn) A polynucleotide according to any one of Claim 35 wherein the polynucleotide comprises a DNA sequence being a contiguous or non-contiguous fusion of a DNA sequence encoding a heterologous protein with either the DNA sequence SEQ ID NO: 25 or the DNA sequence SEQ ID NO: 21.

54. (Withdrawn) A polynucleotide according to any one of Claim 36 wherein the polynucleotide comprises a DNA sequence being a contiguous or non-contiguous fusion of a DNA sequence encoding a heterologous protein with either the DNA sequence SEQ ID NO: 25 or the DNA sequence SEQ ID NO: 21.

55. (Withdrawn) A process according to Claim 51 additionally comprising the step of further purifying the mature desired protein.

56. (Withdrawn) A process according to Claim 55 additionally comprising the step of formulating the thus separated and purified mature desired protein with a therapeutically acceptable carrier or diluent thereby to produce a therapeutic product suitable for administration to a human or an animal.

57. (Previously presented) A non-naturally occurring leader sequence for directing the secretion of proteins, said leader sequence comprising:

(a) an albumin secretion pre sequence or albumin secretion pre sequence having at least 60% sequence identity to SEQ ID NO:28, and

(b) the following motif:

$-X_1-X_2-X_3-X_4-X_5-$

where X_1 is phenylalanine, tryptophan, or tyrosine, X_2 is isoleucine, leucine, valine, alanine or methionine, X_3 is leucine, valine, alanine or methionine, X_4 is serine or threonine and X_5 is isoleucine, valine, alanine or methionine.

58. (Currently amended) The leader sequence according to claim 57 comprising the secretion pre sequence of SEQ ID NO: 28~~MKWVFIVSILFLFSSAYS~~.

59-63. (Canceled)

64. (Previously presented) A polypeptide in accordance with Claim 1, wherein the albumin secretion pre sequence comprises SEQ ID NO:28.

65. (Previously presented) A polypeptide in accordance with Claim 1, wherein the albumin secretion pre sequence consists of SEQ ID NO:28.

66. (Previously presented) A polypeptide in accordance with Claim 1, wherein the albumin secretion pre sequence has at least 70% sequence identity to SEQ ID NO:28.

67. (Previously presented) A polypeptide in accordance with Claim 1, wherein the albumin secretion pre sequence has at least 75% sequence identity to SEQ ID NO:28.

68. (Previously presented) A polypeptide in accordance with Claim 1, wherein the albumin secretion pre sequence has at least 80% sequence identity to SEQ ID NO:28.

69. (Previously presented) A polypeptide in accordance with Claim 1, wherein the albumin secretion pre sequence has at least 90% sequence identity to SEQ ID NO:28.

70. (Previously presented) A polypeptide in accordance with Claim 1, wherein the albumin secretion pre sequence has at least 95% sequence identity to SEQ ID NO:28.

71. (Previously presented) A polypeptide in accordance with Claim 1, wherein the albumin secretion pre sequence has at least 99% sequence identity to SEQ ID NO:28.

72. (Previously presented) A polypeptide in accordance with claim 1, wherein the mature desired protein is heterologous to the leader sequence.

73. (Previously presented) A polypeptide in accordance with claim 1, wherein the motif is disposed within the albumin secretion pre sequence, and wherein the motif comprises the amino acid sequence of SEQ ID NO: 7.

74. (Previously presented) A leader sequence in accordance with Claim 57, wherein the albumin secretion pre sequence comprises SEQ ID NO:28.

75. (Previously presented) A leader sequence in accordance with Claim 57, wherein the albumin secretion pre sequence consists of SEQ ID NO:28.

76. (Previously presented) A leader sequence in accordance with Claim 57, wherein the albumin secretion pre sequence has at least 70% sequence identity to SEQ ID NO:28.

77. (Previously presented) A leader sequence in accordance with Claim 57, wherein the albumin secretion pre sequence has at least 75% sequence identity to SEQ ID NO:28.

78. (Previously presented) A leader sequence in accordance with Claim 57, wherein the albumin secretion pre sequence has at least 80% sequence identity to SEQ ID NO:28.

79. (Previously presented) A leader sequence in accordance with Claim 57, wherein the albumin secretion pre sequence has at least 90% sequence identity to SEQ ID NO:28.

80. (Previously presented) A leader sequence in accordance with Claim 57, wherein the albumin secretion pre sequence has at least 95% sequence identity to SEQ ID NO:28.

81. (Previously presented) A leader sequence in accordance with Claim 57, wherein the albumin secretion pre sequence has at least 99% sequence identity to SEQ ID NO:28.

82. (Previously presented) A leader sequence in accordance with Claim 57, wherein the motif is disposed within the albumin secretion pre sequence, and wherein the motif comprises the amino acid sequence of SEQ ID NO: 7.